

- (carbon oxide-ethylene; polyketone soln. and manuf. of polyketone fibers)
- IT Polyketones  
(fiber; polyketone soln. and manuf. of polyketone fibers)
- IT Polyketones  
(fibers; polyketone soln. and manuf. of polyketone fibers)
- IT 25052-62-4P, Carbon monoxide-ethylene copolymer  
(fiber; polyketone soln. and manuf. of polyketone fibers)
- IT 7646-85-7, Zinc chloride, uses  
7647-14-5, Sodium chloride, uses 10043-52-4, Calcium chloride, uses  
(polyketone soln. and manuf. of polyketone fibers)
- L38 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2003 ACS  
2000:869762 Document No. 134,18440 Polyketone fibers with high tensile strength manufactured by spinning carbon monoxide-olefin copolymer solutions containing palladium, nickel, or cobalt in aqueous zinc halide solutions with good spinnability and manufacture thereof and composite materials therefrom. Kato, Jinichiro; Morita, Toru (Asahi Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000345431 A2 20001212, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-159258 19990607.
- AB The fibers consist of polymers (A) contg. .gtoreq.90% CO-olefin alternating copolymer units and contain .ltoreq.100 ppm Pd, Ni, and/or Co. The fibers are prepd. by spinning solns. contg. 0.005-70% A in .gtoreq.1 aq. zinc halide (B) soln. or aq. mixts. comprising .gtoreq.1 zinc halide and .gtoreq.1 metal salt other than B and showing amt. of dissoln. in H2O at 50.degree. .gtoreq.1% into a coagulating bath to form coagulated fibers with H2O content .gtoreq.50% or coagulating the fibers and washing the fibers with H2O at pH .ltoreq.4 to form fibers with Zn content .ltoreq.10,000 ppm, drying the fibers at .gtoreq.50.degree. for partial or complete removal of H2O from the fibers, and drawing the fibers. The fibers are useful for tire cords, belts, radiator hoses, sewing yarns, and ropes and as cement reinforcing materials. A soln. contg. 12% CO-ethylene copolymer (I) in 65:10:25 ZnCl2/NaCl/H2O was spun into air, passed through a coagulating bath, washed, dried, and drawn to total draw ratio 12.6 to give fibers with Pd content 37 ppm and Zn content 70 ppm and exhibiting tenacity 11.4 g/denier, elongation 5.6%, and elasticity 146%. The fibers were twisted to form cords, coated with an epoxy resin (II) to II content 5%, dried, and laminated with chloroprene rubber to give a V belt exhibiting good retention of tensile strength of I fibers as detd. by a specified testing.
- IT 25052-62-4P, Carbon monoxide-ethylene copolymer  
(fiber; polyketone fibers with high tensile strength manufd. by spinning carbon monoxide-olefin copolymer solns. contg. palladium, nickel, or cobalt in aq. zinc halide solns. with good

spinnability)  
 RN 25052-62-4 HCAPLUS  
 CN Ethene, polymer with carbon monoxide (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 630-08-0  
 CMF C O

$\text{-C}\equiv\text{O}^+$

CM 2  
 CRN 74-85-1  
 CMF C2 H4

$\text{H}_2\text{C}=\text{CH}_2$

IT 7646-85-7, Zinc chloride, uses  
 (solvent; polyketone fibers with high tensile strength manufd. by  
 spinning carbon monoxide-olefin copolymer solns. contg.  
 palladium, nickel, or cobalt in aq. zinc halide solns. with good  
 spinnability for)  
 RN 7646-85-7 HCAPLUS  
 CN Zinc chloride ( $\text{ZnCl}_2$ ) (9CI) (CA INDEX NAME)

$\text{Cl-Zn-Cl}$

IC ICM D01F006-76  
 ICS B60C009-00; C08G067-02; C08J005-04; D01F006-30; F16G005-06;  
 C08L021-00  
 CC 39-13 (Synthetic Elastomers and Natural Rubber)  
 Section cross-reference(s): 40, 58  
 ST polyketone fiber spinning stability; carbon monoxide ethylene  
 copolymer fiber spinning stability; tensile strength polyketone  
 fiber; belt reinforcement polyketone fiber; tire cord polyketone  
 fiber manufg; radiator hose polyketone fiber manufg; cement  
 reinforcement polyketone fiber manufg; rope polyketone fiber manufg;  
 composite reinforcement polyketone fiber manufg  
 IT Belts  
 Fiber-reinforced composites  
 Ropes  
 Tire cords  
 polyketone fibers with high tensile strength manufd.  
 by spinning carbon monoxide-olefin copolymer solns. contg.

- palladium, nickel, or cobalt in aq. zinc halide solns. with good spinnability for)
- IT 25052-62-4P, Carbon monoxide-ethylene copolymer  
49603-60-3P, Carbon monoxide-ethylene copolymer, sru  
(fiber; polyketone fibers with high tensile strength manufd. by spinning carbon monoxide-olefin copolymer solns. contg. palladium, nickel, or cobalt in aq. zinc halide solns. with good spinnability)
- IT 7646-85-7, Zinc chloride, uses  
7647-14-5, Sodium chloride, uses  
(solvent; polyketone fibers with high tensile strength manufd. by spinning carbon monoxide-olefin copolymer solns. contg. palladium, nickel, or cobalt in aq. zinc halide solns. with good spinnability for)
- L38 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2003 ACS/  
2000:697469 Document No. 133:268170 Polyketone fibers with high modulus and improved dimensional stability and heat resistance at high temperatures and manufacture thereof. Taniguchi, Toru; Morita, Toru (Asahi Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000273720 A2 20001003, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-77220 19990323.
- AB The fibers exhibit min. storage modulus (E') at 50-150.degree. as detd. by the dynamic viscoelastic measurement at 110 Hz or the fibers exhibit E' at 180.degree. and 110 Hz .gtoreq.80 g/denier and shrinkage at 180.degree. .ltoreq.4%, and the fibers consist of polyketones or polyketones comprising carbon monoxide-olefin copolymers (A) or polymers contg. .gtoreq.90% A units or polyketones showing intrinsic viscosity (.eta.) .gtoreq.0.3. The fibers are prepd. by spinning dopes contg. polyketones in aq. solns. contg. .gtoreq.50% zinc salts or ZnCl<sub>2</sub> or zinc complex salts with metals other than Zn, removing the solvents from the fibers, and drawing the fibers at a temp. (T) from 150.degree. to m.p. of the fibers and drawing stress (.sigma.) .gtoreq.(2.25-0.005T) g/denier. The fibers are useful for tire cords (no data). A dope contg. carbon monoxide-ethylene copolymer with .eta. (in m-cresol, at 60.degree.) 4.6 in an aq. soln. contg. 75% ZnCl<sub>2</sub> was spun into an aq. coagulating bath at 10.degree., washed, wound at 5.6 m/min, dried, drawn to draw ratio 2.3 at 240.degree., subsequently drawn to draw ratio 2.3 at 240.degree. and .sigma. 1.6 g/denier to give fibers with tenacity 10.2 g/denier and elongation 4.5% and showing min. E' at 95.degree. and exhibiting E' at 180.degree. 120 g/denier and shrinkage (JIS L-1013) at 180.degree. 2.1%.
- IT 25052-62-4, Carbon monoxide-ethylene copolymer  
(fiber; polyketone fibers with high modulus and improved dimensional stability and heat resistance at high temps. and manuf. thereof)
- RN 25052-62-4 HCAPLUS  
CN Ethene, polymer with carbon monoxide (9CI) (CA INDEX NAME)

CRN 630-08-0  
CMF C O

-C≡O+

CM 2

CRN 74-85-1  
CMF C2 H4

H<sub>2</sub>C=CH<sub>2</sub>

IT 7646-85-7, Zinc chloride, uses  
(solvent; polyketone fibers with high modulus and improved  
dimensional stability and heat resistance at high temps. and  
manuf. thereof for)  
RN 7646-85-7 HCAPLUS  
CN Zinc chloride (ZnCl<sub>2</sub>) (9CI) (CA INDEX NAME)

Cl-Zn-Cl

IC ICM D01F006-76  
ICS D01F006-30; C08L073-00  
CC 40-2 (Textiles and Fibers)  
Section cross-reference(s): 39  
ST polyketone fiber heat resistant manufg; carbon monoxide ethylene  
copolymer fiber heat resistant manufg; tensile strength polyketone  
fiber heat resistant; modulus polyketone fiber heat resistant; tire  
cord polyketone fiber heat resistant; zinc  
chloride solvent polyketone fiber manufg  
IT 25052-62-4, Carbon monoxide-ethylene copolymer  
(fiber; polyketone fibers with high modulus and improved  
dimensional stability and heat resistance at high temps. and  
manuf. thereof)  
IT 7646-85-7, Zinc chloride, uses  
(solvent; polyketone fibers with high modulus and improved  
dimensional stability and heat resistance at high temps. and  
manuf. thereof for)

L38 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2003 ACS  
2000:133767 Document No. 132:167161 Polyketone aqueous  
solutions useful for manufacture of fibers. Kato,  
Jinichiro; Morita, Toru; Fujieda, Kiyoshi (Asahi Kasei Kogyo  
Kabushiki Kaisha, Japan). PCT Int. Appl. WO 2000009611 A1 20000224,

34 pp. DESIGNATED STATES: W: JP, KR, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (Japanese).  
 CODEN: PIXXD2. APPLICATION: WO 1999-JP4235 19990805. PRIORITY: JP 1998-236595 19980810; JP 1999-72091 19990317.

AB The solns. contain a copolymer of carbon monoxide with an olefin and a solvent, wherein at least 90% of the copolymer is accounted for by carbon monoxide units and olefin units and the solvent is an aq. soln. of at least one member selected from the group consisting of a Zn, Ca salt, thiocyanate, and Fe salt. Thus, mixing a CO-ethylene-propylene copolymer (propylene content 6 mol%; intrinsic viscosity 0.5 dL/g; in hexafluoroisopropanol at 25.degree.) with a 70% aq. soln. of Zn chloride at 60.degree. gave a dope contg. 10% polymer, which could be recovered as fibril product.

IT 25052-62-4P, Carbon monoxide-ethylene copolymer (polyketone aq. solns. useful for manuf. of fibers)

RN 25052-62-4 HCAPLUS

CN Ethene, polymer with carbon monoxide (9CI) (CA INDEX NAME)

CM 1

CRN 630-08-0  
 CMF C O

-C≡O+

CM 2

CRN 74-85-1  
 CMF C2 H4

H<sub>2</sub>C=CH<sub>2</sub>

IT 7646-85-7, Zinc chloride, uses (solubilizing agents; polyketone aq. solns. useful for manuf. of fibers)

RN 7646-85-7 HCAPLUS

CN Zinc chloride (ZnCl<sub>2</sub>) (9CI) (CA INDEX NAME)

Cl-Zn-Cl

IC ICM C08L073-00  
 ICS C08J003-03; D01F006-28  
 CC 37-3 (Plastics Manufacture and Processing)

- Section cross-reference(s): 40
- ST carbon monoxide ethylene propylene copolymer soln; zinc chloride aq soln polyketone; calcium salt aq soln polyketone; fibril polyketone aq soln
- IT Polyketones  
Polyketones  
Polyketones  
Polyketones  
carbon monoxide-based, fiber; polyketone aq. solns. useful for manuf. of fibers)
- IT Polyolefin fibers  
Polyolefin fibers  
Polyolefin fibers  
Polypropene fibers, preparation  
Polypropene fibers, preparation  
Polypropene fibers, preparation  
Synthetic polymeric fibers, preparation  
Synthetic polymeric fibers, preparation  
Synthetic polymeric fibers, preparation  
carbon monoxide-ethylene-propene; polyketone aq. solns. useful for manuf. of fibers)
- IT Nonwoven fabrics  
Solubilizers  
polyketone aq. solns. useful for manuf. of fibers)
- IT Polyketones  
polyketone aq. solns. useful for manuf. of fibers)
- IT 25052-62-4P, Carbon monoxide-ethylene copolymer  
88995-51-1P, Carbon monoxide-ethylene-propylene copolymer  
polyketone aq. solns. useful for manuf. of fibers)
- IT 333-20-0, Potassium thiocyanate 7646-85-7, Zinc chloride, uses 7705-08-0, Ferric chloride, uses 7789-41-5, Calcium bromide 10102-68-8, Calcium iodide (solubilizing agents; polyketone aq. solns. useful for manuf. of fibers)
- IT 7647-14-5, Sodium chloride, uses 7757-82-6, Sodium sulfate, uses (solubilizing co-agents; polyketone aq. solns. useful for manuf. of fibers)
- L38 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2003 ACS  
1991:186933 Document No. 114:186933 Photodegradable olefin polymer mixtures and their preparation and use as films. Hobes, John; Payer, Wolfgang (Hoechst A.-G., Germany). Ger. Offen. DE 3921144 A1 19910110, 5 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1989-3921144 19890628.
- AB The title mixts. contain 75-95% low-pressure polyolefin as well as 10-150 ppm carboxylic acid salt of an element of at. no. 22-58 and 5-25% copolymer of C<sub>2</sub>H<sub>4</sub>, CO, and optionally other monomers. The salt and CO copolymer accelerate the photodegrdn. of the mixts.